

#### ABSTRACT OF THE DISCLOSURE

[0031] A fabricating method of low temperature poly-silicon film is described. An amorphous silicon layer is formed on a substrate first; then, an anneal treatment is performed on the amorphous silicon layer for forming a poly-silicon layer (poly-silicon film) from the amorphous silicon layer. Several mounds are formed on the surface of the poly-silicon layer. A surface treatment step is performed; then, another laser anneal step is conducted on the poly-silicon layer. Since the size of these mounds on the surface of the poly-silicon layer can be reduced, the issue that the mounds are too big and have different sizes in the prior art can be resolved.